



Arch Chemicals, Inc.

MATERIAL SAFETY DATA

FOR ANY EMERGENCY, CALL 24 HOURS/7 DAYS:	1-800-654-6911
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300
FOR ALL MSDS QUESTIONS & REQUESTS, CALL MSDS CONTROL:	1-800-511-MSDS

PRODUCT NAME: HTH® SPA DEFOAMER

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 10-24-2003 SUPERCEDES: 09-10-2003
MSDS NO: 01920-0001 - 86212

MANUFACTURER: Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204

SYNONYMS: None
CHEMICAL FAMILY: Polydimethylsiloxane
FORMULA: Not Applicable/Mixture
DESCRIPTION: Defoaming agent
OSHA CLASSIFICATION: Mild eye irritant

SECTION 2 COMPONENT DATA

PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Polydimethylsiloxane
CAS NUMBER: 63148-62-9
PERCENTAGE RANGE: 26-31%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Water
CAS NUMBER: 7732-18-5
PERCENTAGE RANGE: 69-74%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

SECTION 3 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.
STORAGE CONDITIONS: Store in a cool, dry, well-ventilated place.
DO NOT STORE AT TEMPERATURES ABOVE: 100 Deg.C (212 Deg.F)

PRODUCT STABILITY AND COMPATIBILITY

SHELF LIFE LIMITATIONS: Approximately 1 year. Product may settle out of suspension but can be redispersed by shaking.
INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Strong oxidizers

SECTION 4 PHYSICAL DATA

APPEARANCE: Creamy white liquid

FREEZING POINT: No Data
BOILING POINT: Approximately 100 Deg.C (212 Deg.F)
DECOMPOSITION TEMPERATURE: Not known
SPECIFIC GRAVITY: Approximately 1
BULK DENSITY: Approximately 1 (g/cc)
pH: 6-7 (product)
VAPOR PRESSURE @ 25 DEG.C: Not known
SOLUBILITY IN WATER: Soluble
VOLATILES, PERCENT BY VOLUME: 69-74%
EVAPORATION RATE: No Data
VAPOR DENSITY: No Data
MOLECULAR WEIGHT: Not Applicable/Mixture
ODOR: Mild
COEFFICIENT OF OIL/WATER DISTRIBUTION: No Data

SECTION 5 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION: Respirator protection not normally needed since the volatility and toxicity are low. If vapors, mists, or aerosols are generated, wear a NIOSH approved respirator.

VENTILATION: Local exhaust ventilation is recommended if vapors, mists or aerosols are generated. Otherwise, use general exhaust ventilation.

SKIN PROTECTIVE EQUIPMENT: Use chemical safety glasses and impermeable gloves.

EQUIPMENT SPECIFICATIONS:

RESPIRATOR TYPE: Not normally needed; if vapors, mists or aerosols are produced, wear a NIOSH approved dust/mist filter respirator.

PROTECTIVE CLOTHING TYPE: (This include: gloves, boots, apron, protective suit): Neoprene

SECTION 6 FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:

FLAMMABLE: No
COMBUSTIBLE: No
PYROPHORIC: No

FLASH POINT: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR): Not Applicable

NFPA RATINGS: None Established

HMIS RATINGS:

Health: 1
Flammability: 0
Reactivity: 0
Personal Protection: B

EXTINGUISHING MEDIA:

Not Applicable-Choose extinguishing media suitable for surrounding materials.

FIRE FIGHTING TECHNIQUES AND COMMENTS:

Use water to cool containers exposed to fire.

See Section 11 for protective equipment for fire fighting.

SECTION 7 REACTIVITY INFORMATION

CONDUCTIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

TEMPERATURES ABOVE: May decompose on heating after all the water has boiled off.

MECHANICAL SHOCK OR IMPACT: No

ELECTRICAL (STATIC) DISCHARGE: No

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: None Known

HAZARDOUS DECOMPOSITION PRODUCTS: May include carbon monoxide, carbon dioxide and silicon oxides upon combustion.

SUMMARY OF REACTIVITY:

OXIDIZER: No

PYROPHORIC: No

ORGANIC PEROXIDE: No

WATER REACTIVE: No

SECTION 8 FIRST AID

EYES:

Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation develops, call a physician.

SKIN:

Not a skin irritant. Washing any substance off the skin with water is a good safety practice.

INGESTION:

Immediately drink water to dilute. Consult a physician if symptoms develop.

INHALATION:

This product is not toxic by inhalation. Remove individual to fresh air.

SECTION 9 TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

Eye contact, ingestion

WARNING STATEMENTS AND WARNING PROPERTIES

DO NOT TAKE INTERNALLY. CAUSES MILD EYE IRRITATION.

HUMAN THRESHOLD RESPONSE DATA

ODOR THRESHOLD: No Data

IRRITATION THRESHOLD: No Data

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: The IDLH concentration has not been established for this product.

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE

INHALATION

ACUTE:

No significant adverse effects to health would be expected to occur from inhalation with normal use of this product. If material is spraying or misting, inhalation may cause irritation to the nose, throat, mucous membranes and upper respiratory tract. Any irritation would be expected to be transient with no permanent damage expected.

CHRONIC:

There are no known or reported effects from chronic exposure.

SKIN

ACUTE:

No significant adverse effects to health would be expected to occur from dermal contact.

CHRONIC:

There are no known or reported effects from chronic exposure.

EYE

Contact with the eyes would be expected to cause mild irritation consisting of reversible redness, swelling and mucous discharge to the conjunctiva. No corneal involvement or visual impairment would be expected.

INGESTION

ACUTE:

This product is considered to be practically non-toxic from acute ingestion. However, ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy or diarrhea.

CHRONIC:

There are no known or reported effects from chronic exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None known or reported

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY

None known or reported

ANIMAL TOXICOLOGY

ACUTE TOXICITY:

Inhalation LC 50: No Data

Dermal LD 50: Believed to be > 2 g/kg. (rabbit)

Oral LD 50: Believed to be > 5 g/kg. (rat)

Irritation: Not a skin irritant. Slight to mild eye and mucous membrane irritant.

ACUTE TARGET ORGAN TOXICITY:

No organs known to be damaged from exposure to this product.

CHRONIC TARGET ORGAN TOXICITY:

There are no known or reported effects from repeated exposure.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY:

There are no known or reported effects on reproductive function or fetal development from exposure to this product.

Several grades of polydimethylsiloxane caused no evident change when tested for reproductive and teratogenic effects in rats and rabbits and testicular effects in rabbits.

CARCINOGENICITY:

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

MUTAGENICITY:

This product is not known or reported to be mutagenic.

Polydimethylsiloxane has been tested and was found to be non-mutagenic in the dominant lethal assay in mice.

AQUATIC TOXICITY:

Several grades of polydimethylsiloxane have been tested and have the following aquatic toxicity data:

Daphnia magna, 48 hr. LC50: 44.5 mg/l (nominal, static)

Rainbow trout, 96 hr. LC50: > 10,000 ppm

Bluegill sunfish, 96 hr. LC50: > 10,000 ppm
Brown shrimp, 96 hr. LC50: > 1,000 ppm

SECTION 10 TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT REGULATED AS A DOT HAZARDOUS MATERIAL.

SECTION 11 SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: Not Applicable (Per 40 CFR 302.4)

SPILL MITIGATION PROCEDURES:

Evacuate all non-essential personnel. Stop source of spill as soon as possible and notify appropriate personnel.

AIR RELEASE: Not Applicable

WATER RELEASE: This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

LAND SPILL: Create a dike or trench to contain materials. Spill materials may be absorbed using absorbant material. Containerize and label all spill materials properly. Decontaminate all clothing and the spill area using detergents and flush with large amounts of water.

SPILL RESIDUES:

Dispose of per guidelines under Section 12, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

No extra protection required beyond that listed in Section V (in case of fire, use NIOSH approved self-contained breathing apparatus (SCBA).

Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, gloves (see below for compatible materials), splash-proof goggles.

Compatible material for response to this material is neoprene.

SECTION 12 WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a non-hazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations by treatment in a wastewater treatment system.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

SECTION 13 ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT:

This substance is listed on the Toxic Substances Control Act inventory.

SUPERFUND AMENDMENT AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Acute

PHYSICAL:

None

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

None Established

SECTION 14 ADDITIONAL INFORMATION

MSDS REVISION STATUS: First Issue

SECTION 15 MAJOR REFERENCES

1. Kennedy, G. L., Jr., et al., Reproductive, Teratologic, and Mutagenic Studies with some Poly-dimethylsiloxanes, Journal of Toxicology and Environmental Health, Vol. 1, pp. 909-920, 1976.
2. AQUIRE Database (aquatic toxicity), Chemical Information Systems, Inc., Towson, MD.
3. Clayton, G. and F. Clayton, Eds., Patty's Industrial Hygiene and Toxicology, Vol. 2A-F 4th Ed., New York: John Wiley & Sons, 1993-1994.
4. Kumar, Pravin, et al., Dermal and Mucosal Irritancy of Indigenous Silicone Fluids. Indian Journal of Pharmaceutical Sciences, Vol. 47, No. 1, pp. 104-107, May-June 1985.
5. Green, Sidney, et al., Current Status of Bioassays in Genetic Toxicology - the Dominant Lethal Assay. A Report of the U.S. Environmental Protection Agency Gene-Tox Program. Mutation Research, Vol. 154, pp. 49-67, 1985.
6. Keplinger, M.L., and J.C. Calandra, Toxicity of Polydimethyl siloxanes in Certain Environmental Systems. Environmental Research, Vol. 10, pp. 397-406, 1975.

Additional References are available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

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